

What is claimed is:

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1. A motion vector encoding device for encoding motion vectors of respective blocks obtained
5 by partitioning each frame of moving image data, comprising:
predicting means for predicting a motion vector of a target block based on motion vectors of a plurality of blocks adjacent to the target block;
10 determining means for determining accuracy of a prediction made by said predicting means based on degrees of non-uniformity of the plurality of motion vectors; and
encoding means for encoding the motion vector of
15 the target block using a result of the prediction made by said predicting means with an encoding method determined based on a result of a determination made by said determining means.
- 20 2. The motion vector encoding device according to claim 1, wherein said determining means determines the accuracy of the prediction made by said predicting means based on the degrees of non-uniformity of the plurality of motion vectors which have already been
25 encoded in an area adjacent to the target block.

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3. The motion vector encoding device according to claim 1, wherein said encoding means comprises:

selecting means for selecting one of said plurality of individual encoding means based on the result of the determination made by said determining means, and for outputting a result of encoding performed by the selected individual encoding means;

5. The motion vector encoding device according
to claim 1, wherein:

20 said predicting means comprises first and second
predicting means for respectively predicting first and
second components of the motion vector of the target
block;

25 said determining means comprises
first determining means for determining

the accuracy of the prediction made by said first predicting means based on degrees of non-uniformity of respective first components of the plurality of motion vectors, and

said encoding means comprises

second encoding means for encoding the
20 second component of the motion vector of the target
block by using a result of a prediction made by said
second predicting means with an encoding method
determined based on a result of a determination made
by said second determining means.

6. A motion vector encoding device for encoding motion vectors of respective blocks obtained by partitioning each frame of moving image data, comprising:

5 predicting means for predicting a motion vector of a target block based on motion vectors of a plurality of other blocks within a frame to which the target block belongs;

10 determining means for determining accuracy of a prediction made by said predicting means based on degrees of non-uniformity of the plurality of motion vectors which have already been encoded within the frame to which the target block belongs; and

15 encoding means for encoding the motion vector of the target block by using a result of the prediction made by said predicting means with an encoding method determined based on a result of a determination made by said determining means.

20 7. A motion vector encoding device, which is arranged within an interframe predictive coding device for encoding moving image data by using a plurality of motion vectors, for encoding a motion vector, comprising:

25 predicting means for predicting a target motion

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vector based on a plurality of motion vectors adjacent to the target motion vector;

determining means for determining accuracy of a prediction made by said predicting means based on
5 degrees of non-uniformity of the plurality of motion vectors; and

encoding means for encoding the target motion vector by using a result of a prediction made by said predicting means with an encoding method determined
10 based on a result of a determination made by said determining means.

8. A motion vector encoding device for encoding motion vectors of respective blocks obtained
15 by partitioning each frame of moving image data, comprising:

recognizing means for recognizing a nature of an image in an area adjacent to a target block; and

encoding means for encoding a motion vector of the
20 target block with an encoding method determined based on a result of recognition made by said recognizing means.

9. A motion vector encoding device for encoding
25 motion vectors of respective blocks obtained by

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partitioning each frame of moving image data,
comprising:

a predictor which predicts a motion vector of a
target block based on motion vectors of a plurality
5 of blocks adjacent to the target block;

a detector which detects accuracy of a prediction
made by said predictor based on degrees of non-
uniformity of the plurality of motion vectors; and

an encoder which encodes the motion vector of the
10 target block using a result of the prediction made by
said predictor with an encoding method determined
based on a detected result by said detector.

10. A motion vector encoding method for
15 encoding motion vectors of respective blocks obtained
by partitioning each frame of moving image data,
comprising the steps of:

predicting a motion vector of a target block based
on motion vectors of a plurality of blocks adjacent
20 to the target block;

determining accuracy of the prediction based on
degrees of non-uniformity of the plurality of motion
vectors; and

encoding the motion vector of the target block by
25 using a result of the prediction with an encoding

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method determined based on a result of a determination
of the accuracy of the prediction.

11. A motion vector decoding device for
5 decoding an encoding result which is obtained by
encoding motion vectors of respective blocks obtained
by partitioning each frame of moving image data,
comprising:

predicting means for predicting a motion vector of
10 a target block based on motion vectors of a plurality
of blocks adjacent to the target block;

determining means for determining accuracy of a
prediction made by said predicting means based on
degrees of non-uniformity of the plurality of motion
15 vectors; and

decoding means for decoding the motion vector of
the target block by using a result of the prediction
made by said predicting means with a decoding method
determined based on a result of a determination made
20 by said determining means.

12. A motion vector decoding device for
decoding an output of a motion vector encoding device
which predicts a motion vector of a target block based
25 on motion vectors of a plurality of blocks adjacent

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to the target block, determines accuracy of a prediction based on degrees of non-uniformity of a plurality of motion vectors which have already been encoded in an area adjacent to the target block, and
5 encodes the motion vector of the target block by using a result of the prediction with an encoding method determined based on a result of a determination of the accuracy of the prediction, in order to encode motion vectors of respective blocks obtained by partitioning
10 each frame of moving image data, comprising:

predicting means for predicting the motion vector of the target block based on the plurality of motion vectors used to make the determination within the motion vector encoding device;

15 determining means for determining accuracy of a prediction made by said predicting means based on the degrees of non-uniformity of the plurality of motion vectors; and

20 decoding means for decoding the motion vector of the target block by using a result of the prediction made by said predicting means with a decoding method determined based on a result of a determination made by said determining means.

25 13. A motion vector decoding method for

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decoding a result of encoding obtained by encoding motion vectors of respective blocks obtained by partitioning each frame of moving image data, comprising the steps of:

- 5 predicting a motion vector of a target block based on motion vectors of a plurality of blocks adjacent to the target block;

- determining accuracy of a prediction based on degrees of non-uniformity of the plurality of motion
10 vectors; and

- decoding the motion vector of the target block by using a result of the prediction with a decoding method determined based on a result of a determination of the accuracy of the prediction.

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